Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Telecommunications Services	)	CS Docket No. 95-184
Inside Wiring	)	
	)	
Customer Premises Equipment	)	

COMMENTS OF CONTINENTAL CABLEVISION, INC. AND CABLEVISION SYSTEMS CORPORATION

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Continental Cablevision, Inc. ("Continental") and Cablevision Systems Corporation ("Cablevision") (collectively "Joint MSOs") submit these comments on the Commission's Notice[1/] to alter its inside wiring rules. Because the FCC's proposed actions in this proceeding would contravene both Congressional and Commission policies supporting two-wire, facilities-based competition between broadband services providers, its current inside wiring rules should remain unchanged.

INTRODUCTION AND SUMMARY

By enacting the Telecommunications Act of 1996, Congress fundamentally transformed the legal and policy landscape governing telecommunications from a model premised upon the monopolistic provision of services to one predicated upon the competitive provision of services. Congress inscribed facilities-based competition as the cornerstone of telecommunications law and policy and endorsed market-driven solutions to industry issues over outcomes mandated by regulators. This unequivocal commitment to facilities-based competition reflects both a fundamental aversion to policies and practices that limit consumer

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1/ Telecommunications Services Inside Wiring; Customer Premises Equipment, Notice of Proposed Rulemaking, CS Docket No. 95-184 (released Jan. 26, 1996)("Notice").

choice and an abiding confidence in the capacity of providers to promote consumer welfare by competing to offer existing and new voice, video, data, and telecommunications services.

Paradoxically, while Congress has acted to promote facilities-based competition, the Commission has released for comment a set of proposals that would stifle such competition, create new bottlenecks, and reduce consumer choice. Facilities-based broadband services competition cannot emerge without multiple end-to-end broadband networks. There are already at least two wires entering most homes, and wireless companies, broadcasters, and satellite-based providers also have paths into the home. These competitors are presently responding to marketplace incentives and the burgeoning of new services by taking steps to expand the capacity of their distribution paths. Instead of nourishing this process, however, the proposals set forth in the Notice would undermine it by discouraging the deployment of competing end-to-end broadband networks.

The proposal to change or extend the current demarcation point for cable television inside wiring would have a devastating effect on consumer choice and competition in multiple dwelling units ("MDUs").[2/] This is a critical issue for both of the Joint MSOs, since a substantial block of their respective subscriber bases in key markets reside in MDUs.[3/] If the

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[2/] The proposals under discussion have included moving the existing demarcation point in MDUs -- which is currently at or about 12 inches outside the subscriber's dwelling unit -- to the minimum point of entry (usually the basement), or a "point outside a subscriber's premises and within the common areas of a multiple dwelling unit building where 'existing wiring is first readily available' to alternative providers . . .". See Notice at ¶ 6 and ¶ 10; see also infra at n. 10. References in these comments to "extending" or "expanding" the demarcation point are meant to refer to these proposals to move the demarcation point in MDUs farther away from the subscriber's dwelling unit than is provided for under the Commission's current rules.

[3/] For example, it is estimated that 70% of Cablevision's potential customers in Boston reside in buildings with 6 or more units, while 85% of its potential customers in New York City and 60% of its potential customers in Hudson County, New Jersey live in MDUs with 4 or more units.

Commission were to expand the cable demarcation point in MDUs, the prospect for broadband services competition in such buildings would be significantly undermined, since new entrants could assume control over existing hallway wiring, riser cables, and other MDU network infrastructure installed and maintained by cable operators. Thus, competitors could enter the broadband services market in MDUs without constructing and deploying the competing end-to-end broadband networks that are an essential precondition to consumer choice in those buildings. Not only would the competitive deployment of broadband networks be stifled, but cable operators also would have to reassess their own existing broadband capacity investment plans in MDUs. Extending the cable demarcation point in MDUs would alter cable operators' investment incentives by substantially heightening the risk that the new facilities being deployed would be surrendered to a competitor, and therefore could not be used by the operator to offer the services that spawned the investment.

Instead of promoting a marketplace in which MDU subscribers would have a competitive choice of both service providers and individual broadband services, an extended demarcation point would foster an all-or-nothing approach in which consumers would be irreversibly forced to choose a single provider for all broadband services. In addition, the competitive landscape would be distorted since some companies could enter the broadband services market without making a commensurate network infrastructure investment, providing them with an enormous competitive advantage in pricing video and other broadband services. This result, which is contrary to both Congressional intent and Commission policy, would be to reward companies unwilling to invest in their own distribution facilities, and harm companies that have already deployed or begun to upgrade end-to-end broadband networks.

Both Cablevision and Continental have invested tens of millions of dollars in their MDU network infrastructure with an eye toward offering more than just one-way multichannel video programming, including on-line services and local telephony. For example, because of the Joint MSOs' commitment to, and investment in, expanding the bandwidth capacity of their networks, a growing number of their subscribers either now -- or will soon -- have the ability to obtain high-speed Internet access, as well as other on-line services such as Prodigy and America On-Line, over cable wires. Indeed, Continental's "Project Agora" service that is currently offered to the Boston College community and Cablevision's PC Online technological trial presently underway on Long Island vividly demonstrate the Joint MSOs' commitment to use their network infrastructure to provide their subscribers with advanced services.

The Joint MSOs' commitment to using their broadband network infrastructure to offer new services to all subscribers means that even if a MDU subscriber decided to terminate cable service, the hallway wiring that would be affected by the instant proposal could still be used by the Joint MSOs to deliver other telecommunications services to subscribers, such as competitive telephone service, access to electronic data bases, two-way pay-per-view, home banking, and other information services. If the demarcation point is extended in MDUs, however, the forced relinquishment of hallway wiring and other MDU network infrastructure would prevent the Joint MSOs from offering these additional advanced services to customers who might choose to purchase video service from a competitor. New business opportunities would be foreclosed and further investment in network upgrades would be discouraged, since there would be no guarantee of being able to offer consumers the services justifying such an investment.

The adverse competitive consequences of extending the cable demarcation point would be further exacerbated by proposals discussed in the Notice that would transform MDU landlords into broadband services gatekeepers by empowering them with the potential to select a single broadband services provider for a particular MDU. Such proposals further stifle facilities-based competition within MDUs and dispossess tenants of their ability to make individualized broadband selections based upon choice, price, and quality.

There are also a host of technical and safety problems associated with extending the demarcation point, including signal leakage and signal quality issues. There are equitable issues as well, including the propriety of establishing a Federal policy mandating the sale of broadband assets to competitors, and the capacity to fairly appraise such assets when the full value of services that can be delivered over them is unknown. Extending the cable demarcation point also would contravene statutory provisions in both the 1992 Cable Act and the 1996 Telecommunications Act.

The Commission's apparent desire to unify regulation of cable and telephone inside wiring is rooted in premature conceptions regarding the pace and direction of convergence in the telecommunications business. Notwithstanding the potential possibility for telecommunications companies to integrate the provision of voice, video, data and multimedia services over a single broadband wire, such integrated service offerings are in their nascency. The dangers lurking within the Notice proposals are not just that they would thwart emerging two-wire, facilities-based competition, but that they would also stifle the process of convergence by overlaying it with a set of rules that are premised upon theoretical assumptions rather than market and technological realities. Instead of attempting to dictate convergence through the establishment of regulations, the Commission should allow convergence to evolve

naturally within the marketplace. Accordingly, the Commission should defer altering its existing wiring rules, at least until there is empirical data regarding the extent and shape of convergence in the market for broadband services.

I. EXTENDING THE DEMARCATION POINT FOR CABLE INSIDE WIRING WOULD CONTRAVENE CONGRESSIONAL INTENT AND COMMISSION POLICY BY DISCOURAGING FACILITIES-BASED COMPETITION IN THE PROVISION OF BROADBAND SERVICES TO MULTIPLE DWELLING UNITS

In the Telecommunications Act of 1996 ("1996 Act"),[4/] Congress endorsed facilities-based competition among cable operators, telephone companies, and other providers of broadband services. The 1996 Act's central purpose is "to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition."[5/] The clear Congressional preference for two-wire competition to serve broadband consumers is reflected in specific provisions of the 1996 Act.[6/] These provisions are consistent with the Commission's own

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4/ Telecommunications Act of 1996, Pub. L. No. 104-104 (1996) ("1996 Act").

5/ H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. 113 (1996) ("Conference Report").

6/ For example, the legislation preempts state and local laws and regulations that inhibit the provision of competitive telecommunications services. 47 U.S.C. § 253. Section 271 of the Act requires the Bell Operating Companies to provide unbundled network access and interconnection to a facilities-based provider of local exchange service as a precondition to their entry into the interexchange business within their service areas. 47 U.S.C. § 271. In addition, Congress sought to promote two-wire broadband competition by expressly restricting a local exchange carrier's ("LEC's") ability to purchase cable companies within its service area, as well as a cable operator's ability to purchase a LEC within its franchise area. 47 U.S.C. § 572.

efforts to promote that objective.[7/] For example, the Commission adopted its video dialtone rules as a means of promoting a two-wire broadband policy at a time when telephone companies were not permitted by law to provide video services through constructing traditional cable companies or by purchasing cable company facilities in their service areas.[8/] Likewise, other Commission policy initiatives have been undertaken with the objective of promoting two-wire competition.[9/]

The Congressional policy of promoting two-wire facilities-based competition in the broadband services marketplace precludes the Commission from extending the cable

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[7/] In discussing a predecessor bill to the 1996 Act, Chairman Hundt stated that "what we need here is legislation that establishes fair rules of two-wire competition." FCC Chairman Reed E. Hundt before the Broadcasting & Cable Interface, 1994 FCC LEXIS 4875 (Oct. 4, 1994).

[8/] See Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54 - 63.58, Second Report and Order, Recommendation To Congress, and Second Further Notice of Proposed Rulemaking, 7 FCC Rcd 5781, 5796-97 (1992) ("VDT Second Report"), appeal pending sub nom., Mankato Citizens Telephone Company, No. 92-1404 (D.C. Cir. filed Sept. 9, 1992), modified, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking, 10 FCC Rcd 244 (1994) ("VDT Memorandum Opinion and Order").

[9/] Cf. Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, Report and Order, 9 FCC Rcd 6513, 6520 (1994) (requiring construction of facilities to further the public interest goal of facilities-based competition); Implementation of Sections 12 and 19 of the Cable Television Consumer Protection and Competition Act of 1992; Development of Competition and Diversity in Video Programming Distribution and Carriage, First Report and Order, 8 FCC Rcd 3359, 3384 n.79 (1993) (program competition will not occur without the development of alternative facilities to deliver programming), citing H.R. Rep. No. 102d Cong., 2d Sess. 93 (1992) (the Commission shall encourage arrangements that promote the development of new technologies providing facilities-based competition).

demarcation point,[10] since such a proposal would thwart both competition and consumer choice in multiple dwelling units.[11] MDUs are "vertical neighborhoods" and the network infrastructure deployed by the Joint MSOs in these buildings is analogous to the feeder plant running down residential streets and the drop wires connected to subscriber homes. The riser cables and hallway wiring in MDUs that have been installed by the Joint MSOs are as integral to their networks as the infrastructure deployed on streets in single-family residential communities. Thus, the expanded demarcation point proposals for MDUs are the functional equivalent of granting competitors the ability to seize cable operators' feeder plant and

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[10] The Commission's current rules set the cable demarcation point -- *i.e.*, the point at which cable plant ends and subscriber inside wiring begins -- "at (or about) twelve inches outside of where the cable wire enters the subscriber's premises." 47 C.F.R. § 76.5(mm)(1). In multiple dwelling units ("MDUs"), the demarcation point is currently "at (or about) twelve inches outside of where the cable wire enters the subscriber's dwelling unit." Id. at § 76.5(mm)(2). The telephone demarcation point, on the other hand, is up to twelve inches inside the home. For MDUs, however, telephone companies are granted flexibility to establish the demarcation point in accordance with their standard operating practices. For new MDUs, telephone companies may establish a standard practice of setting the demarcation point at the minimum point of entry in the building, which is usually the basement. See id. at § 68.3(a)-(b).

Under current law, cable operators are required, upon termination of service, to offer their customers access to inside wiring on the subscriber's side of the demarcation point at replacement cost. Id. at § 76.802. Thus, extending the cable demarcation point would provide subscribers -- and competitors -- access to wiring which is now classified and treated as cable network plant. See, e.g., In the Matter of Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation, First Report and Order, MM Docket No. 92-266, 8 FCC Rcd 5631, 5805-06 and n.666; Cable Television Rate Regulation, "Questions and Answers," May 13, 1993, at 11-12.

[11] These initial comments filed by the Joint MSOs will focus upon the adverse consequences of moving the demarcation point in MDUs. The Notice does not propose to expand the cable demarcation point for single family homes and therefore would not appear to implicate existing cable operator plant that serves such residences. Notice ¶ 17. Moreover, the Notice expressly states that the record before the Commission "indicates that the current cable demarcation point in multiple dwelling unit buildings may impede competition in the video programming delivery marketplace," and that the Commission intends "to resolve this issue expeditiously." Id.

subscriber drops in residential neighborhoods, an outcome that would clearly contravene the Congressional policy favoring two-wire competition.

The Commission must ensure that all consumers have the benefits of two-wire competition, regardless of whether they live in single family residences or MDUs. If a competitor is permitted to assume control over existing network infrastructure deployed by the Joint MSOs within MDUs, their ability to continue to provide service to potential customers within those buildings would be negated.[12/] In order to have any hope of regaining the business of those customers, the Joint MSOs only recourse would be to commit capital and resources into redeploying network infrastructure within those MDUs to replace the lost assets.[13/] Apart from the manifest inequity of forcing cable operators to surrender their assets, the financial burdens and practical impediments of replacing the lost investment in MDU network capacity that has been involuntarily transferred to competitors are likely to be

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[12/] The proposal would particularly harm cable operators serving MDUs with leasehold tenants, since the occupants of subscriber units in those buildings can be expected to change a number of times during the useful life of the operator's MDU network infrastructure. Thus, even if the occupant of a particular unit decides to switch to another provider, the hallway wiring used to service that unit is still useful to the operator who may one day regain the opportunity to serve that unit if its occupancy changes.

[13/] Such redeployment would be the operator's only option. Simultaneous use of hallway wiring within MDUs by competing providers is, as the Commission recognizes, "not technically or economically feasible at the present time." Implementation of the Cable Television Consumer Protection and Competition Act of 1992: Cable Home Wiring, First Order on Reconsideration and Further Notice of Proposed Rulemaking, MM Docket No. 92-260 at ¶ 10 (released Jan. 26, 1996) ("Cable Home Wiring Recon Order").

insurmountable. The result will be to diminish competition in the provision of multichannel video programming to these buildings.[14/]

Expanding the demarcation point would not only require cable operators to surrender valuable network assets, it would obviate the need for competitors to deploy their own broadband infrastructure within MDUs. If competitors are empowered to assume control over existing broadband capacity, their natural, profit-maximizing incentives will be to forego construction of that network capacity wherever possible. Thus, by moving the demarcation point in MDUs, the Commission would undermine existing marketplace incentives that encourage the competitive deployment of end-to-end broadband networks. Instead, the proposal would reward competitors that have been heretofore unwilling to invest in their own distribution facilities, while harming providers that have deployed broadband facilities[15/] -- precisely the opposite result mandated by Congress.

Not only would an extended demarcation point discourage broadband investment by competitors, it would undermine the present marketplace incentives that are spurring cable operators to make new investments to upgrade and expand their broadband capacity. Commission rules that require cable operators to surrender broadband network facilities in

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[14/] Not only would such a result undermine competition in the multichannel video programming market, but competition for the provision of other services would be harmed as well. As detailed below, see supra at Part III, the Joint MSOs presently provide -- or are on the verge of providing -- a number of advanced telecommunications services over their facilities, including telephony, Internet access, two-way pay-per-view, home banking, and other information services. If cable operators were forced to transfer their distribution facilities to another service vendor simply because an individual no longer subscribed to their traditional cable video entertainment service, this subscriber would not have access, either today or in the future, to these other advanced services.

[15/] The magnitude of the harm is amplified by the fact that in surrendering their broadband capacity, cable operators would effectively be subsidizing the entry of their competitors into the broadband services marketplace.

MDUs would slow considerably network upgrades in MDU-concentrated markets because of the heightened prospect that the facilities constructed and deployed through such investment could be obtained by their competitors. Ironically, an expanded demarcation point would effectively discourage new investment and the deployment of new capabilities by cable operators at the very moment in which such activity is most necessary and valuable: in response to new competition.[16/]

The Commission cannot allay the inequity of forcing cable operators to surrender broadband network plant they have deployed or reverse the dampening effect on future investment simply through the establishment of some compensation scheme nominally designed to approximate the value of the wiring seized.[17/] Because the broadband market is exploding with new services and new potential revenue streams, there is currently no adequate method for calculating the value of the lost business opportunities associated with the forced sale of internal broadband wiring deployed in MDUs.[18/] Such a concern does not arise in the context of a voluntary sale of such assets, since the seller is permitted to set a price that reasonably approximates the value of the lost business opportunities and the expected return on the investment over the life of the network asset. By mandating such transfers pursuant to a

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[16/] As detailed below, network investment by cable operators is being driven both by a desire to upgrade capacity for their core video business, as well as by the need to deploy additional capacity to provide new services. See infra at Section III.

[17/] Indeed, the Commission recognizes that there may be several compensation issues related to transferring inside wiring. Notice ¶ 51.

[18/] Inside wiring transferred to cable subscribers under current rules is valued at replacement cost. 47 C.F.R. § 76.802. Such a standard is clearly inapposite in connection with the transfer of MDU hallway wiring pursuant to an extended demarcation point, since the operator would be losing the ability to provide not simply video service to a particular unit, but the whole range of broadband services to multiple units.

government-established compensation formula, however, the Commission will clearly stifle and distort incentives to invest in new network infrastructure within MDUs.[19/]

By undermining current market forces that are spurring the deployment of competing broadband networks, an extended cable demarcation point would move the provision of broadband services in MDUs away from a two-wire competitive landscape and toward a one-wire paradigm in MDUs.[20/] Network services providers will focus resources on controlling the single broadband transmission path within an MDU, rather than on competing for the business of MDU tenants on the basis of price, quality and innovation of their service offerings. Instead of permitting consumers to have the opportunity to obtain some services from one provider and some services from another provider, the Commission's proposals would force consumers to take all of their broadband services from one provider. The

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[19/] The forced surrender of cable operator plant without adequate compensation would violate the takings clause of the Fifth Amendment. U.S. Const. Amend. V. A "taking" of private property occurs when there is "a permanent physical occupation authorized by government." Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 426 (1982); accord Lucas v. South Carolina Coastal Council, 112 S.Ct. 2886, 2893 (1992). In Loretto, the Supreme Court found that requiring landlords to permit the installation of cable television facilities occupying only one and a half cubic feet in their MDUs was a taking. Thus, any government-mandated physical occupation of indefinite duration will satisfy this standard, See Kaiser Aetna v. United States, 444 U.S. 164 (1979); Hendler v. United States, 952 F.2d 1364, 1376-77 (Fed. Cir. 1991), and complete divestiture of cable facilities is undeniably a permanent physical intrusion under settled law. See Lucas, 112 S.Ct. at 2893. The per se takings analysis applies equally to real property and personal property. Nixon v. United States, 978 F.2d 1269, 1285 (D.C. Cir. 1992). The Commission has no authority to establish just compensation for an involuntary taking of private property, since such matters must be settled in adjudicatory proceedings. See Monongahela Navigation Co. v. United States, 148 U.S. 312, 317 (1893); see also Florida Power Corp. v. Federal Communications Commission, 772 F.2d 1537, 1544-46 (11th Cir. 1985), rev'd on other grounds, 480 U.S. 245 (1987).

[20/] See infra at Section III.

Commission should not discourage full facilities-based competition by creating such an internal distribution bottleneck.[21/]

Congress has sought to promote a two-wire competitive environment in which consumers can make broadband services choices by selecting from offerings made available by multiple providers. Extending the cable demarcation point in MDUs fundamentally conflicts with this objective and therefore must be abandoned.

II. NEW SERVICES BEING OFFERED TO CABLE SUBSCRIBERS WILL BE JEOPARDIZED BY EXTENDING CABLE'S DEMARCATION POINT

Consumers should be able to make broadband service choices on a service-by-service basis, and should not be forced -- due to the absence of two-wire competition -- to make an all-or-nothing choice between competing broadband service providers. For instance, consumers should have the opportunity to obtain Internet access and impulse pay-per-view service from a cable operator, while choosing a telephone company -- or another broadband distributor -- to obtain one-way multichannel video programming. Such service-by-service competition will spur innovation, put downward pressure on prices, and maximize consumer welfare. This competitive model, however, is only possible if providers have ongoing direct access to subscribers and control over their own facilities.

[21/] Indeed, policies that encourage the creation of a single-wire bottleneck within MDUs significantly heighten the possibility that providers' relationships with landlords and building managers will dictate broadband services decisions, rather than price and quality. See infra at Section III.

The competitive model described above is not just a theoretical possibility, but is actually beginning to emerge in the marketplace.[22/] As detailed further below, Cablevision and Continental, as well as other cable operators, have already invested substantial sums in developing broadband capacity not only for the one-way provision of video programming, but also for additional services such as two-way pay-per-view service, high-speed Internet access, and local telephony. In order to have the capability to provide these new services, advanced cable plant carries up to 200 MHz of additional capacity above and beyond that which is required to distribute a full complement of multichannel video programming services. If a customer served by an advanced cable network decides to switch to another video provider, the operator currently retains both the incentive and the ability to use the broadband plant deployed to continue providing services to that customer, such as telephony, Internet access and other telecommunications services.

The Joint MSOs' would be blocked from offering these new services to MDU subscribers if they are forced to surrender control over large portions of their existing MDU broadband plant to competitors. Network upgrades necessary to provide such services would also be slowed, if cable operators are faced with a heightened risk of being foreclosed from providing consumers with the services that are driving the upgrade investment. Moreover, there is no guarantee that the new entrant could provide full range of services offered by the Joint MSOs, or that it could provide them as efficiently. Even if the competitor did wish to provide such services, the proposal would deny consumers the opportunity to choose among

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[22/] For example, some customers subscribe to basic cable service from a cable operator to receive local over-the-air broadcast signals and multichannel video programming service and simultaneously choose a Direct Broadcast Services provider to gain access to additional programming.

competing providers. Thus, mandatory transfer of the Joint MSOs internal broadband plant would result in a net loss in the volume, range, and quality of broadband service offerings available to MDU consumers.

A. Two-Way Video Services Technology

Cablevision is currently providing advanced, interactive video services on a number of its systems. Some Cablevision systems, including facilities in New York City, Yonkers, Long Island, Connecticut and parts of New Jersey, offer subscribers a wide array of advanced two-way services and capabilities, including an impulse technology that enables subscribers to purchase and receive movies and events without using the telephone.[23/] Subscribers need only push a series of buttons on their remotes or converter boxes to send signals back to the headend identifying the subscribers' service selection. The system's two-way capabilities also greatly enhance the quality of service delivered to subscribers.[24/]

Even if some Cablevision subscribers opt to purchase conventional multichannel video programming services from another provider, retention of the two-way broadband capacity deployed by Cablevision gives it an opportunity to continue to serve as pay-per-view provider

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[23/] It is clear that subscribers enjoy the ease and convenience of the impulse technology provided by the system. For example, in 1995, Cablevision's average monthly buy rates (*i.e.*, the volume of pay-per-view purchases divided by the number of subscribers who have impulse pay-per-view service) for impulse pay-per-view movies and other special events are approximately 65% in New York City, 70% in Boston, and 62% in Yonkers. Approximately one million impulse pay-per-view converters were deployed in the field to Cablevision subscribers in 1995.

[24/] Status monitoring and performance data are continually transmitted back to the headend over the system's return signal paths. The two-way architecture vastly improves system performance and reliability, and significantly accelerates the company's ability to locate and limit any outages or problems that do arise. Instead of waiting to hear from a subscriber about an outage or a deterioration in picture quality caused by a faulty amplifier, the two-way capabilities of these systems frequently enable Cablevision to identify and remedy potential problems before they even occur.

for such subscribers. Not only would such a competitive scenario maximize consumer choice, the ongoing competition between the two providers would stimulate innovative offerings and promote optimal customer service, as each provider vies to obtain more business from the customer both are serving. Under the Commission's proposal, however, the forced surrender of its broadband wire to the competitor would preclude Cablevision from competing in this manner in MDUs and deny these benefits to subscribers residing in such buildings.

B. High-Speed Internet Access and Other Advanced Services

Continental has completed installation of a broadband communications network at Boston College, named "Project Agora," that allows students to connect to video and data services in their dormitory rooms.[25/] Services include data transport over an Asynchronous Transmission Mode ("ATM") backbone, Internet access to residence halls, an 80-channel analog system that can be upgraded to a 720-channel digital interactive system, and five channels of in-house programming specific to the Boston College community. Continental has installed cable modems that facilitate high-speed data services to more than 6,500 dormitory rooms, 2,500 classrooms, and 400 offices across the campus.[26/]

In connection with its service to the Boston College campus and a market test in the Boston area, Continental has deployed cable modem service that transmits information at 10 megabits per second, utilizing a packet-based technology, at speeds 100 times faster than

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[25/] See "Cable Modems Are Tested and Found To Be Addictive," Wall Street Journal (Dec. 27, 1995); "Continental Eyes Northeast I-NET," Multichannel News at 54 (Nov. 6, 1995).

[26/] Demand for Internet access through cable facilities is likely to steadily increase. A recently released survey estimated that there are roughly 24 million Internet users in the United States and Canada. See "Cable Modems Said to Be Poised for Market Explosion, Cable Regulation Monitor at 6-7 (Nov. 27, 1995). Some estimate that cable modems -- which afford consumers extremely rapid, clean and inexpensive Internet access -- will be in 15% of all U.S. homes by the year 2000. See id.

integrated services digital network ("ISDN") service.[27] Through this service, in conjunction with cable modems, consumers can, at relatively low cost, transfer as much as an 18-Mbyte file in just twelve seconds.[28] These speeds represent a significant leap forward in data transmission time.[29]

The ability to access the Internet through cable television facilities is largely premised upon the utilization of high-speed packet-switched data technologies in combination with value-added services, such as the provision of unique content.[30] For example, Cablevision's PC Online service, which is being offered to over 500 subscribers as part of a technological test, includes an interactive "News 12" service focused on Long Island, a Cablevision bulletin board site, Internet access, and a money management feature.[31] This ground breaking service uses broadband cable wire to offer a variety of services. In a common application, Cablevision's PC Online service can make the difference between waiting to download graphic images to a

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[27] See F. Dawson, "Early Adopters Take To It; Continental: Online Business Is Real," Multichannel News at 47-48 (Oct. 23, 1995); "Cable Modems Are Tested and Found To Be Addictive," Wall Street Journal (Dec. 27, 1995).

[28] See "Cable Modems Said To Be Poised For Market Explosion," Warren's Cable Regulation Monitor at 6 (Nov. 27, 1995).

[29] While cable modem technology has been developing for some time, equipment is now available for cable operators to begin deployment. For instance, Motorola, Inc.'s Multimedia Group recently signed a $175 million deal with three cable companies to provide up to 350,000 modems and related infrastructure. See "Motorola Inks $175m In Deal for 350,000 Units," Phillips' CableFAX Daily (Nov. 30, 1995).

[30] In fact, most operators that are planning to deploy such services intend to utilize similar technologies such as ATM in conjunction with "value-added" content. See, A. Breznick, "Golden Cable Modems," Cable World at 50 (Nov. 27, 1995).

[31] Continental also has a site on the World Wide Web that offers interactive television listings and that permits customers in 20 states to direct questions to the company through e-mail. "Continental Cablevision's New World Wide Web Site Targets Customers," Multichannel News (Nov. 27, 1995).

PC from an online service for two hours to downloading or receiving the data in approximately two minutes. Cablevision's PC online service also operates independently from the subscriber's telephone, thus permitting telecommuting without a separate dedicated telephone line for computer connections.

High-speed Internet access is not the only advanced service being offered by the Joint MSOs.[32/] Both companies are beginning to provide subscribers with other electronic information services, such as home banking and electronic messaging.[33/] The Internet access and data transmission services markets represent burgeoning businesses whose potential is only beginning to be tapped. MDUs are particularly useful locales in which to target initial deployment of service offerings in these nascent markets, since they offer concentrated access to a broad volume and variety of potential customers. The Joint MSOs have made substantial investments in upgrading their network infrastructures in order to have the opportunity to offer these new services.

[32/] Continental is also performing a trial of high-speed data transfer with Exeter Health Resources, Inc. in Exeter, New Hampshire. Phillip's CableFAX Daily (Jan. 12, 1996). Without leaving their offices, physicians can send and receive patient records and other information such as x-rays at speeds 500 to 700 times faster than conventional dial-up telephone lines.

[33/] Cable operators are also exploring the offering of energy conservation and energy management services over their networks. Industry estimates indicate that the investment required for cable upgrades to provide energy-related services would be much less than for other broadband networks. One cable operator has teamed with a utility to explore a joint venture to provide demand-side management featuring real-time energy usage measurement and pricing information, 24-hour temperature control, household energy scheduling, automated billing, online bill payment, electronic meter reading, and immediate outage detection. These features would be available in conjunction with an energy management unit, set-top box, and transmission over the cable network. "Utilities Plug Into Convergence," Convergence at 22 (Nov. 1995).

While Internet access and other advanced services offered by the Joint MSOs do complement their core video business, these services are clearly regarded as separate, sustainable businesses in their own right. In other words, the Joint MSOs intend to offer all potential customers these services, regardless of whether such customers decline to subscribe to cable service or purchase multichannel video programming from another provider. The broadband infrastructure deployed by the Joint MSOs makes the provision of these services possible. The forced surrender of that infrastructure within MDUs, in response to a subscriber's decision to switch video providers, would prevent the Joint MSOs' from offering Internet access, data transmission, and other advanced telecommunications services. Such a result would directly contravene the Commission's express policy goals and thwart the evolution of a promising telecommunications services market.

C. Local Exchange Telephone Competition

Both Cablevision and Continental are taking steps to enter the local exchange marketplace. Cablevision already provides switched and dedicated telecommunications services in New York State through its Cablevision Lightpath subsidiary and plans to continue to expand this business.[34/] Lightpath's advanced telephony service employs self-healing backbone rings and redundant electronics that allow fault isolation and service restoration within a fraction of a second. This technology permits Lightpath to monitor telephone service 24 hours per day. Lightpath employs a Class 5 ESS central office switch and fiber optic plant

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[34/] New York Public Service Commission, Petition of Cablevision Lightpath, Inc., formerly NewComm Test, Inc., to Amend Its Certificate of Public Convenience and Necessity to Authorize the Provision of All Forms of Telephone Service on an IntraLATA Intracity Switched Basis Throughout New York State, Order Issuing Certificate of Public Convenience and Necessity and Approving Expedited Proceeding and Related Waivers, Case No. 92-C-0680 (issued and effective July 8, 1993). Cablevision is also seeking authority to provide local exchange service in Ohio, Connecticut, and is certified to do so in Massachusetts.

to provide local, intraLATA toll, and long distance calling, DS-0 services, ISDN-primary rate interface services, digital data services, DS-1 service, fractional DS-1 service, DS-3 service, switched services, and other central office solutions. Lightpath, at this time, provides these services to commercial customers including universities and hospitals.

Continental has obtained a certificate to operate as a local exchange carrier in California and Florida.[35/] The company is also planning to enter the local exchange marketplace and has filed for authority to serve as a local exchange carrier in New Hampshire in order to offer high-speed, point-to-point data and telephony services over its hybrid fiber/coax network.[36/]

While neither of the Joint MSOs is presently offering video and telephony over a single broadband wire, both are actively considering such an approach, particularly in those areas where bandwidth capacity has been upgraded to 750 MHz. Indeed, Lightpath is presently conducting a technical field trial to provide residential telephone service over its hybrid-fiber coax ("HFC") network and expects to offer telephony service over the HFC network by the end of the year. Thus, even if MDU subscribers decide to switch video providers, the Joint MSOs investment in broadband plant and development of competitive local exchange operations provide them with an opportunity to continue to serve the telephony needs of such subscribers. However, if hallway wiring, riser cables and other broadband plant beyond the current cable demarcation point must be surrendered to competitors, the Joint MSOs would not be able to use their MDU network facilities to provide telephone service to tenants in those

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[35/] Continental has deployed a Class 5 switch in Jacksonville to be used for switching and transmitting telephone traffic in the Florida market.

[36/] See "Phone Fight," Business Briefcase, The Boston Herald (Jan. 12, 1996); Phillip's CableFAX Daily (Jan. 12, 1996).

buildings. Thus, the Commission's proposal threatens to undermine the very type of facilities-based local exchange competition which Congress expressly sought to promote in the Telecommunications Act of 1996.

In short, the Joint MSOs have made substantial investments in upgrading their network infrastructure in order to develop and utilize sufficient bandwidth capacity to offer two-way pay-per-view services, high-speed Internet access, local telephony and other advanced services. These services are no longer a theoretical possibility, but are actually beginning to be offered in the market. The Joint MSOs must be able to retain control over the internal network infrastructure within MDUs in order to retain the capacity to offer these new services to customers. Accordingly, the Commission should abandon its plan to expand the cable demarcation point in MDUs because it will prevent the Joint MSO from offering these services to customers residing in those buildings.

III. THE COMMISSION SHOULD EMPOWER MDU TENANTS, RATHER THAN LANDLORDS, TO MAKE BROADBAND SERVICES CHOICES

To promote two-wire competition in MDUs, the Commission's policies must proceed from the premise that the tenant, and not the landlord, is the customer in such buildings.[37/] Competition will not be possible where control over access to potential MDU customers is wielded by landlords or property management corporations who decide to affiliate exclusively with a particular broadband service provider. Proposals that empower landlords to make such choices regarding their tenants' broadband services must be rejected in favor of proposals that

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[37/] See Notice ¶ 13.

empower tenants to make such choices for themselves.[38] Otherwise, landlords would become broadband services gatekeepers, possessed with the authority to grant or deny service providers access to potential subscribers residing in MDUs based upon considerations that may be wholly unrelated to the range and quality of services offered by the providers.[39]

The harm caused by these practices will only be heightened as cable operators begin to roll-out new services for subscribers that competitors may be unable or unwilling to provide. In such instances, landlords that make service provider decisions based upon their own pecuniary interest may not only be denying their tenants competitive choice in traditional multichannel video services, but also new services. As the Commission recognizes, a number of states have responded to the problem of landlord-created competitive bottlenecks by enacting statutes granting cable operators access to the premises of MDUs.[40] To the extent that the Commission takes any action in this area, it should be geared toward diminishing the capacity of landlords to serve as gatekeepers and empowering the ability of subscribers to make individualized broadband services choices based upon price and quality.

The Commission acknowledges in the Notice that adverse competitive consequences are inherent in granting MDU landlords and property managers control over access to their premises. It errs, however, by suggesting that expanding the cable demarcation point will help

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[38] For example, Cablevision has been hampered by landlords and property managers from providing competing video services and telephony service in some MDUs and commercial buildings, even in States with access to property statutes.

[39] Concerns that landlords and property managers may limit their tenants' broadband services choices are by no means theoretical. See, e.g., Jube Shiver, Jr., Back to the Future, L.A. Times, at 1 (June 18, 1995); Communications Daily, Sept. 20, 1995, at 7; "Conservative Telephone Business to Undergo Mammoth Changes," Washington Telecom News, No. 23, Vol. 2 (June 6, 1994).

[40] See Notice ¶ 60; see e.g., N.Y.S. Exec. Law, Art. 28 § 828.

alleviate this problem.[41/] Because extending the cable demarcation point will create a broadband bottleneck within MDUs, such a step will simply enhance the power of landlords to impose their choice of broadband services providers on tenants. Simultaneous use of hallway wiring and riser cables between broadband competitors is not technically or economically feasible.[42/] Consequently, moving the minimum point of entry to the basement of an MDU means that disputes between subscribers and providers over control of such wiring will arise each time a particular tenant decides to switch video providers. For example, if competitors are granted access to MDU hallway wiring installed by cable operators, and some residents on a particular floor decide to take service from the cable operators while other obtain video programming from the competitor, both providers arguably would have a claim to the wiring. To avoid the constant recurrence of such inevitable disputes, landlords and property management owners will simply decide that their buildings may only be served by a single provider, an outcome directly contrary to the goal of two-wire competition.

These adverse results will not ensue, however, if cable operators are permitted to retain control over the riser cables, hallway wiring and other network infrastructure they have deployed in MDUs. Claims by competitors regarding the difficulties of deploying their own internal network infrastructure within MDUs are unavailing. For example, in MDUs where Cablevision has entered as the second provider of video service, it installs a second distribution system in order to ensure adequate capacity and quality and protect the operational integrity of each provider's distribution infrastructure. There is no reason why competing providers cannot do the same thing. Accordingly, the Commission's policies should focus on ensuring that

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41/ See Notice ¶¶ 58, 61.

42/ See supra at n. 13.